

REMARKS

Claims 1, 2, 4 – 12 and 21 are pending and currently under consideration. Claims 13 – 20 are withdrawn from consideration.

Provisional rejection of claims 1, 2, 4 - 12 and 21 on the grounds of nonstatutory obviousness-type double patenting over claims 1 – 15 of co-pending U.S. Patent Application No. 10/817,761

At page 3 of the Office Action, claims 1 – 12 and 21 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 15 of co-pending Application No. 10/817,761. The Examiner alleged that Application No. 10/817,761 claims, in claims 1 and 5, an electrolyte comprising a lithium salt, an organic solvent and an additive compound that initiates decomposition at between 4V and 5V and is selected from a bisphenol A compound. The Examiner further alleged that Application No. 10/817,781 claims in claims 6- 9, that the additive compound is used in an amount of 0.01-10 wt%, that Application No. 10/817,761 claims in claim 10 that the additive forms a passivation layer on the surface of a positive electrode and that Application No. 10/817,761 claims in claims 11-15, the same lithium salts present in the same concentrations and the same organic solvents. For the following reasons, this rejection is respectfully traversed and reconsideration is requested.

In response, Applicants respectfully submit that in view of the remarks herein, all of the other rejections and objections in the application have been overcome, so that the obviousness-type double patenting rejection above is the only remaining rejection in the application. Applicants note that the present application has an earlier filing date (September 10, 2003) than Application No. 10/817,761 (April 2, 2004) and that U.S. Patent Application No. 10/817,761 has not been indicated as allowable or issued as a patent. Under such a situation, the MPEP at Section 804(I)(B)(1) instructs that the obviousness-type double patent rejection should be withdrawn with regard to the earlier-filed application, which should be allowed to issue. Accordingly, withdrawal of the obviousness-type double patenting rejection in the present application is respectfully requested.

Rejection of claims 1 – 2, 7 - 12 and 21 on the grounds of nonstatutory obviousness-type double patenting over claims 1, 6 – 13, 26 – 27 and 41 of U.S. Patent No. 7,223,500

At page 3 of the Office Action, claims 1 – 2, 7 – 12 and 21 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6 – 13, 26 – 27 and 41 of U.S. Patent No. 7,223,500. The Examiner alleged that U.S. Patent No. 7,223,500 claims in claim 1, an electrolyte of a lithium secondary battery comprising lithium salts, a first organic solvent and a carbonate-based additive, claims in claims 26-27, that the electrolyte further comprises a swelling-inhibiting additive such as bisphenol, claims in claims 6-7, that the lithium salts are LiPF₆, LiBF₄, LiSbF₆, etc. and are present in a concentration of 0.6-2.0 M and claims in claims 11-13, that the electrolyte comprises a first organic solvent such as EC and a second solvent comprises methylpropyl carbonate, methylethyl carbonate, etc. The Examiner took the position that since U.S. Patent No. 7,223,500 claims the same electrolyte comprising a lithium salt, an organic solvent and a bisphenol A additive, then inherently a passivation layer formed by the additive on the surface of the positive electrode must also be obtained. The Examiner further alleged that the formation by the additive of a passivation layer on the surface of the positive electrode would obviously have been present once the U.S. Patent No. 7,223,500 product is provided. The Examiner further alleged that it would have been obvious to use 0.1 – 10% of the bisphenol A additive on the alleged grounds that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, citing in re Aller, 105 U.S.P.Q 233 (CCPA 1955). For the following reasons, this rejection is respectfully traversed and reconsideration is requested.

Independent claims 1, 2 and 21 include the recitation that the additive compound is used substantially in an amount of 0.01 to 10 wt%, based on a total weight of electrolyte. Claims 1, 6 – 13, 26 – 27 and 41 of U.S. Patent No. 7,223,500, on the other hand, do not specify and provide no guidance or indication regarding the amount of the additive compound. As noted in Applicants' previous response, the specification may not be applied as prior art in an obviousness-type double patenting rejection. M.P.E.P. Section 804.II.B.1). Regarding the Examiner's reasoning based on in re Aller, this case is easily distinguished from the present facts. In in re Aller, claims directed to a process of decomposing a particular compound at a particular temperature range and acid concentration range to obtain particular reaction products were found to be obvious over an applied reference describing essentially the same process, but at a higher temperature range and lower acid concentration. The court stated that a skilled chemist would have thought to reduce the temperature and raise the acid concentration. Claims 1, 6 – 13, 26 – 27 and 41 of U.S. Patent No. 7,223,500, on the other hand, provide no starting point or basis on which to determine the amount of additive. Since claims independent claims 1,

2 and 21 describe aspects that are not described or suggested in claims 1, 6 – 13, 26 – 27 and 41 of U.S. Patent No. 7,223,500, the present claims do not violate the public policy underlying the non-statutory obviousness-type double patenting rejection of preventing an unjustified or improper timewise extension of the right to exclude granted by a patent. Therefore, the rejection should be withdrawn.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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